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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,908	08/20/2003	Masayuki Nakayasu	0425-1069P	4752
2292	7590	12/12/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			DUNN, DAVID R	
			ART UNIT	PAPER NUMBER

3616

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/643,908

Applicant(s)

NAKAYASU ET AL.

Examiner

David Dunn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 6-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/04/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

This Office Action is responsive to the Amendment filed September 22, 2005. Claims 1 and 5 have been canceled and new claims 13-16 have been added.

### ***Information Disclosure Statement***

1. The information disclosure statement filed 11/04/05 is acknowledged. See enclosed IDS form.

### ***Drawings***

2. The drawings were received on 9/22/05. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-4 and 6-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 is indefinite as it recites “a rupturable plate”, however “a rupturable plate” was previously recited in claim 13. It is unclear if the “rupturable plate” of claim 6 is the same as that of claim 13 or not.

Additionally, claim 6 recites a cylindrical retainer as disclosed in Figure 4, which shows the rupturable plate on the side of the diffuser closer to the initiator than the first opening which contradicts claim 13.

Claim 7 is indefinite as it appears to contradict the location of the rupturable plate similar to claim 6. Claim 7 recites the rupturable plate being “sandwiched between the annular fixture and a surface defining the second opening”; as such this does not appear to the “side closer to the first opening” as claimed in claim 13.

Claim 13 recites the limitation “the gas passage” in line 18. There is insufficient antecedent basis for this limitation in the claim. Additionally, it is unclear if this recitation refers to an actual physical element or to the gas itself.

Claim 15 recites the limitation “the cylindrical housing”. There is insufficient antecedent basis for this limitation in the claim. It is noted that claim 13 introduces “a cylindrical inflator housing” and claim 10 recites “a cylindrical housing”.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 2, 3, 9, 10, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (3,944,249).

Smith et al. discloses an inflator comprising: a cylindrical inflator housing (22; see Figure 3); a diffuser portion (14) attached to the second end of the inflator housing, the diffuser including a gas introducing chamber (central portion surrounding rod member 52); an igniter accommodating chamber (60) and in communication with the gas introducing chamber through a second opening (34), the igniter accommodating chamber having a third opening (left side at 80), and a gas discharging hole (40) provided in a wall of the diffuser portion, the gas discharging hole being parallel to the first opening; and a rupturable plate (32) being attached to the diffuser portion from a side closer to the first opening than a side of the igniter.

The second opening is perpendicular to the longitudinal axial direction. An airbag (6) is connected to the housing. The rupturable plate and the igniter have axis which are coincident. The diffuser opening has a fourth opening (24). The igniter has lead wires (82) perpendicular to the imaginary center axis of the second opening. The inflator includes a cylindrical housing (42) extending in an imaginary longitudinal central axis of the inflator housing. The airbag system inherently includes an activation signal outputting means.

7. Claims 2, 3, 9-11, and 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Nanbu (6,572,141).

Nanbu discloses an inflator comprising: a cylindrical inflator housing (12; see Figure 1b); a diffuser portion (2) attached to the second end of the inflator housing, the diffuser including a gas introducing chamber (18; see Figure 2); an igniter accommodating chamber (about 30) and in communication with the gas introducing chamber through a second opening (see pointer 34), the

igniter accommodating chamber having a third opening (lower opening of 32), and a gas discharging hole (14) provided in a wall of the diffuser portion, the gas discharging hole being parallel to the first opening; and a rupturable plate (22) being attached to the diffuser portion from a side closer to the first opening than a side of the igniter. The inflator includes a cylindrical housing (40) including a plurality of holes (42).

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nanbu in view of Cuevas et al. (5,593,180).

Nanbu is discussed above but fails to show an annular fixture.

Cuevas et al. teaches a rupturable disk (142) fixed to an annular fixture (28) sandwiched to the opening (see Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nanbu with the teachings of Cuevas et al. in order to more securely attach the rupturable disk to the inflator.

*Allowable Subject Matter*

10. Claims 4, 6, and 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

*Response to Arguments*

11. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

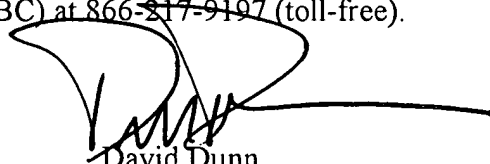
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 571-272-6670. The examiner can normally be reached on Mon-Fri, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Dunn  
Primary Examiner  
Art Unit 3616